Cont B1 45. The device of claim 26, wherein the carriers have a shape that is flat or cylindrical.

REMARKS

In the communication mailed on March 21, 2002, the Examiner said that applicants' response to the restriction requirement mailed on July 3, 2001 was not fully responsive. Specifically, the Examiner disagreed with applicants that new claims 26-53 correspond to restriction group II, drawn to an array device.

Applicants assert that claim 26 corresponds to restriction group II. Claim 26 includes a surface and a set of at least two carriers, the same as cancelled claim 16. The fact that claim 26 uses the term "system" instead of "device" in the preamble should not take the claim out of group II. Apparently, the Examiner believes that claim 26 is not in the same group as cancelled claim 16 because the preamble is different. In an effort to cooperate applicants have amended the preamble in claim 26 to recite an "array device" as in cancelled claim 16.

Claims 27-45 depend from claim 26. Support for new claims 26-45 can be found in the specification as follows: support for claim 26 and 27 can be found in Figures 4 and 5, and related description on pages 16 and 17 of the specification; support for claim 28 can be found on page 15, lines 22-27; support for claim 29 can be found on page 22, lines 20-25; support for claim 30 can be found on page 13, lines 1-20; support for claim 31 can be found on page 13, line 21 to page 14, line 3; support for claim 32 can be found on page 2, lines 29-31, and in original claim 17; support for claims 33 and 34 can be found on page 20, lines 9-

23; support for claims 35 and 36 can be found on page 20, lines 4-8; support for claim 37 can be found in Figure 4 and related text on page 16 of the specification; support for claims 38 and 51 can be found on page 13, claim 17 of U.S. Provisional Application Serial No. 60/170,947 filed December 15, 1999 and incorporated by reference in the subject application; support for claim 39 can be found on page 12, lines 8-31; support for claim 40 can be found on page 22, lines 20-23; support for claim 41 can be found on page 8, line 13 through page 9, line 22, and on page 15, lines 22-33; support for claims 42-44 can be found in Figures 10 and 11; support for claim 45 can be found on page 19, lines 4-5 and on page 10, lines 10-11.

Applicants have cancelled claims 46-53, and will prosecute these claims in a divisional application. Please proceed with examination on the merits.

Respectfully submitted,

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Box NON-FEE AMENDMENT, Commissioner for Patents, Washington, D.C. 20231 on April 22, 2002.

Mandi M. Leighty
Date of Signature: April 22, 2002

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

26. (Amended) An array device [A system for conducting a multiplexed array experiment] comprising

(a) a surface,

(b) a set of at least two carriers, each of the at least two carriers having an optically detectable code that distinguishes it from the other carrier, and each of the at least two carriers carrying an analyte that is identifiable by the respective code on the carrier, the at least two carriers being arbitrarily distributed on the surface,

(c) an imaging device configured to acquire at least one image of an examination site on the surface, both of the at least two carriers being viewable in the at least one image, and

(d) an image analysis system that uses code information from the image to interpret experiments on the analytes.

27. The device [system] of claim 26 wherein the set includes three or more distinctively coded carriers.

28. The device [system] of claim 26, wherein each of the at least two carriers has a colored code.

29. The device [system] of claim 28, wherein the colored code includes at least two distinct colored optically identifiable marks.

30. The device [system] of claim 26, wherein the carriers are formed from fiber optic components.

31. The device [system] of claim 26, wherein the carriers include nanocrystals.

32. The device [system] of claim 26, wherein the surface is glass.

33. The device [system] of claim 26, wherein the imaging device acquires a digital image of the at least two carriers.

34. The device [system] of claim 26, wherein the imaging device uses a CCD camera device to acquire the at least one digital image.

35. The device [system] of claim 26, wherein the imaging device includes a microscope.

36. The device [system] of claim 26, wherein the imaging device includes confocal optics structure.

37. The device [system] of claim 26, wherein the analyte comprises nucleic acid.

38. The device [system] of claim 26, wherein the analyte is selected from the group consisting of antibodies, enzymes, hormones, receptors, and inhibitors.

39. The device [system] of claim 26, wherein the analyte comprises a molecular beacon compound.

40. The device [system] of claim 26, wherein the code on each of the at least two carriers includes a distinctive spatial arrangement of optically identifiable marks.

41. The device [system] of claim 26, wherein each optically identifiable mark is selected from a group of N possible colors, where N is greater than one.

42. The device [system] of claim 26, wherein each carrier has an analyte area and a code display area.

43. The device [system] of claim 42, wherein the analyte area and the code area substantially coincide.

44. The device [system] of claim 42, wherein the analyte area and code at least partially overlap with each other.

45. The device [system] of claim 26, wherein the carriers have a shape that is flat or cylindrical.